What is claimed is:

1. An active matrix liquid crystal display device comprising:

a first substrate:

a second substrate disposed in opposing relation to said first substrate;

a liquid crystal layer sandwiched between said first substrate and said second substrate;

a plurality of pixel electrodes arranged in a matrix on said first substrate;

a plurality of switching elements disposed on said first substrate in association with said pixel electrodes, respectively, for driving the pixel electrodes, respectively;

a plurality of data lines disposed on said first substrate at respective gaps between adjacent two of said pixel electrodes, for supplying data signals to said switching elements; and

a black matrix disposed on said first substrate in association with said data lines, for blocking light passing in a predetermined viewing angle range through a light leakage region created in said liquid crystal layer depending on a potential difference between adjacent two of said pixel electrodes.

2. An active matrix liquid crystal display

device according to claim 1, further comprising color layers disposed on said first substrate, said color layers constituting color filters.

3. An active matrix liquid crystal display device according to claim 2, wherein said black matrix is made of an electrically insulating material, and said switching elements comprise thin-film transistors.

4. An active matrix liquid crystal display device comprising:

a first substrate:

a second substrate disposed in opposing relation to said first substrate;

a liquid crystal layer sandwiched between said first substrate and said second substrate;

an overcoat layer disposed on said first substrate in covering relation to said first substrate;

a plurality of pixel electrodes arranged in a matrix on said overcoat layer;

a plurality of switching elements disposed on said first substrate in association with said pixel electrodes, respectively, for driving the pixel electrodes, respectively;

a plurality of data lines disposed on said first substrate, for supplying data signals to said switching elements, said data lines being covered with said

overcoat layer; and

a black matrix disposed on a surface of said overcoat layer close to said first substrate over said data lines;

said data lines being disposed at respective gaps between adjacent two of said pixel electrodes;

said black matrix being arranged to block light passing in a predetermined viewing angle range through a light leakage region created in said liquid crystal layer depending on a potential difference between adjacent two of said pixel electrodes.

5. An active matrix liquid crystal display device according to claim 4, further comprising color layers disposed on said first substrate, said color layers constituting color filters.

6. An active matrix liquid crystal display device according to claim 5, wherein said black matrix is made of an electrically insulating material, and said switching elements comprise thin-film transistors.

7. An active matrix liquid crystal display device driven by a dot inversion driving process, said active matrix liquid crystal display device comprising:

a first substrate with a plurality of switching elements disposed thereon;

a second substrate disposed in opposing relation to said first substrate; a liquid crystal layer sandwiched between said first substrate and said second substrate;

a plurality of data lines disposed on said first substrate, for supplying data signals to said switching elements;

an overcoat layer disposed on said first substrate in covering relation to said data lines and said first substrate;

a plurality of pixel electrodes arranged in a matrix on said overcoat layer; and

a black matrix disposed on said data lines;

said pixel electrodes being driven by said switching elements, respectively;

said data lines being disposed at respective gaps between adjacent two of said pixel electrodes;

said black matrix having a portion overlapping said pixel electrodes, said portion having a width W represented by:

$$W \geq d_{LC}/2 + d_{OC} \cdot \tan\theta$$

where d_{LC} represents a thickness of said liquid crystal layer, d_{OC} represents a thickness of said overcoat layer on said black matrix, and θ represents one-half of a given viewing angle 2θ.

8. An active matrix liquid crystal display device according to claim 7, wherein the thickness d_{OC} of said overcoat layer on said black matrix is at most 1 μm, and said overcoat layer planarizes steps of said black matrix to at most 0.5 μm.

9. An active matrix liquid crystal display device driven by a gate line inversion driving process, said active matrix liquid crystal display device comprising:

a first substrate with a plurality of switching elements disposed thereon;

a second substrate disposed in opposing relation to said first substrate; a liquid crystal layer sandwiched between said first substrate and said second substrate;

a plurality of data lines disposed on said first substrate, for supplying data signals to said switching elements;

an overcoat layer disposed on said first substrate in covering relation to said data lines and said first substrate;

a plurality of pixel electrodes arranged in a matrix on said overcoat layer; and

a black matrix disposed on said data lines;

said pixel electrodes being driven by said switching elements, respectively;

said data lines being disposed at respective gaps between adjacent two of said pixel electrodes;

said black matrix having a portion overlapping said pixel electrodes, said portion having a width W represented by:

$$W \geq d_{LC}/4 + d_{OC} \cdot \tan\theta$$

where d_{LC} represents a thickness of said liquid crystal layer, d_{OC} represents a thickness of said overcoat layer on said black matrix, and θ represents one-half of a given viewing angle 2θ.

10. An active matrix liquid crystal display device according to claim 9, wherein the thickness d_{OC} of said overcoat layer on said black matrix is at most 1 μm, and said overcoat layer planarizes steps of said black matrix to at most 0.5 μm.

11. An active matrix liquid crystal display device comprising:

a first substrate with a plurality of switching elements disposed thereon;

a second substrate disposed in opposing relation to said first substrate;

a liquid crystal layer sandwiched between said first substrate and said second substrate;

a plurality of data lines disposed on said first

substrate, for supplying data signals to said switching elements;

an overcoat layer disposed on said first substrate in covering relation to said data lines and said first substrate;

a plurality of pixel electrodes arranged in a matrix on said overcoat layer; and

a black matrix disposed on said data lines;

said pixel electrodes being driven by said switching elements, respectively;

said data lines being disposed at respective gaps between adjacent two of said pixel electrodes;

said black matrix being disposed in a position above said data lines and arranged to block light passing in a predetermined viewing angle range through a light leakage region created in said liquid crystal layer depending on a potential difference between adjacent two of said pixel electrodes.

12. An active matrix liquid crystal display device according to claim 11, further comprising color layers disposed on said first substrate, said color layers constituting color filters.

13. An active matrix liquid crystal display device according to claim 12, wherein said black matrix is made of an electrically insulating material, and said

switching elements comprise thin-film transistors.

14. An active matrix liquid crystal display device driven by a dot inversion driving process, said active matrix liquid crystal display device comprising:

a first substrate with a plurality of switching elements disposed thereon;

a second substrate disposed in opposing relation to said first substrate;

a liquid crystal layer sandwiched between said first substrate and said second substrate;

a plurality of data lines disposed on said first substrate, for supplying data signals to said switching elements;

an overcoat layer disposed on said first substrate in covering relation to said data lines and said first substrate;

a plurality of pixel electrodes arranged in a matrix on said overcoat layer; and

a black matrix disposed on said overcoat layer above said data lines;

said pixel electrodes being driven by said switching elements, respectively;

said data lines being disposed at respective gaps between adjacent two of said pixel electrodes;

said pixel electrodes having a portion extending over said black matrix, said portion having a width W

represented by:

$$W \geq d_{LC}/2$$

where d_{LC} represents a thickness of said liquid crystal layer.

15. An active matrix liquid crystal display device driven by a gate line inversion driving process, said active matrix liquid crystal display device comprising:

a first substrate with a plurality of switching elements disposed thereon;

a second substrate disposed in opposing relation to said first substrate;

a liquid crystal layer sandwiched between said first substrate and said second substrate;

a plurality of data lines disposed on said first substrate, for supplying data signals to said switching elements;

an overcoat layer disposed on said first substrate in covering relation to said data lines and said first substrate;

a plurality of pixel electrodes arranged in a matrix on said overcoat layer; and

a black matrix disposed on said overcoat layer lines above said data lines;

said pixel electrodes being driven by said

switching elements, respectively;

said data lines being disposed at respective gaps between adjacent two of said pixel electrodes;

said pixel electrodes having a portion extending over said black matrix, said portion having a width W represented by:

$$W \geq d_{LC}/4$$

where d_{LC} represents a thickness of said liquid crystal layer.

16. An active matrix liquid crystal display device driven by a dot inversion driving process, said active matrix liquid crystal display device comprising:

a first substrate with a plurality of switching elements disposed thereon;

a second substrate disposed in opposing relation to said first substrate;

a liquid crystal layer sandwiched between said first substrate and said second substrate;

a plurality of data lines disposed on said first substrate, for supplying data signals to said switching elements;

an overcoat layer disposed on said first substrate in covering relation to said data lines and said first substrate;

a plurality of pixel electrodes arranged in a

matrix on said overcoat layer; and

a black matrix disposed on said overcoat layer above said data lines,

said pixel electrodes being driven by said switching elements, respectively;

said data lines being disposed at respective gaps between adjacent two of said pixel electrodes;

said black matrix having a portion extending over said pixel electrodes, said portion having a width W represented by:

$$W \geq d_{LC}/2$$

where d_{LC} represents a thickness of said liquid crystal layer.

17. An active matrix liquid crystal display device driven by a gate line inversion driving process, said active matrix liquid crystal display device comprising:

a first substrate with a plurality of switching elements disposed thereon;

a second substrate disposed in opposing relation to said first substrate;

a liquid crystal layer sandwiched between said first substrate and said second substrate;

a plurality of data lines disposed on said first substrate, for supplying data signals to said switching

elements;

an overcoat layer disposed on said first substrate in covering relation to said data lines and said first substrate;

a plurality of pixel electrodes arranged in a matrix on said overcoat layer; and

a black matrix disposed on said overcoat layer above said data lines;

said pixel electrodes being driven by said switching elements, respectively;

said data lines being disposed at respective gaps between adjacent two of said pixel electrodes;

said black matrix having a portion extending over said pixel electrodes, said portion having a width W represented by:

$$W \geq d_{LC}/4$$

where d_{LC} represents a thickness of said liquid crystal layer.

18. An active matrix liquid crystal display device comprising:

a first substrate with a plurality of switching elements disposed thereon;

a second substrate disposed in opposing relation to said first substrate;

a liquid crystal layer sandwiched between said

first substrate and said second substrate;

a plurality of data lines disposed on said first substrate, for supplying data signals to said switching elements;

color layers of color filters disposed in at least regions of said first substrate which are free of said data lines;

a plurality of pixel electrodes disposed on said color layers and arranged in a matrix; and

a black matrix of an electrically insulating material disposed on said data lines,

said pixel electrodes being driven by said switching elements, respectively,

said data lines being disposed at respective gaps between adjacent two of said pixel electrodes;

said black matrix being arranged to block light passing in a predetermined viewing angle range through a light leakage region created in said liquid crystal layer depending on a potential difference between adjacent two of said pixel electrodes.

19. An active matrix liquid crystal display device driven by a dot inversion driving process, said active matrix liquid crystal display device comprising:

a first substrate with a plurality of switching elements disposed thereon;

a second substrate disposed in opposing relation to said first substrate;

a liquid crystal layer sandwiched between said first substrate and said second substrate;

a plurality of data lines disposed on said first substrate, for supplying data signals to said switching elements;

color layers of color filters disposed in at least regions of said first substrate which are free of said data lines;

a plurality of pixel electrodes disposed on said color layers and arranged in a matrix; and

a black matrix of an electrically insulating material disposed on said data lines;

said pixel electrodes being driven by said switching elements, respectively;

said data lines being disposed at respective gaps between adjacent two of said pixel electrodes;

said pixel electrodes having a portion extending over said black matrix, said portion having a width W represented by:

$$W \geq d_{LC}/2$$

where d_{LC} represents a thickness of said liquid crystal layer.

20. An active matrix liquid crystal display

device driven by a gate line inversion driving process, said active matrix liquid crystal display device comprising:

a first substrate with a plurality of switching elements disposed thereon;

a second substrate disposed in opposing relation to said first substrate;

a liquid crystal layer sandwiched between said first substrate and said second substrate;

a plurality of data lines disposed on said first substrate, for supplying data signals to said switching elements;

color layers of color filters disposed in at least regions of said first substrate which are free of said data lines;

a plurality of pixel electrodes disposed on said color layers and arranged in a matrix; and

a black matrix of an electrically insulating material disposed on said data lines;

said pixel electrodes being driven by said switching elements, respectively;

said data lines being disposed at respective gaps between adjacent two of said pixel electrodes;

said pixel electrodes having a portion extending over said black matrix, said portion having a width W represented by:

$$W \geq d_{LC}/4$$

where d_{LC} represents a thickness of said liquid crystal layer.